Alzheimer's Disease

Background

Alzheimer's disease is a degenerative brain disease that impairs mental and emotional function in older adults. Patients lose the ability to think, speak and perform everyday activities. Despite extensive ongoing research, no cure has yet been found. Existing treatments slow the disease's progression, but only slightly. More than four million Americans have the disease, and that figure is expected to triple by 2050.

What VA is Doing

Areas of focus in VA research on Alzheimer's include testing new medications, probing the genetic and environmental causes of the disease, and studying the best way to provide long-term care.

Highlights of current or recent research include the following:

• **Intranasal insulin may help some patients**—Insulin delivered to the brain via the nose may be an effective therapy for some patients with Alzheimer's disease, according to a recent VA study. An increased risk for Alzheimer's has been linked with high levels of insulin in the blood and low levels in the brain. Intranasal administration has been shown to increase brain levels without affecting blood levels, which could cause hypoglycemia.

• **DHA cuts Alzheimer's plaques**—A team with VA and UCLA found that a diet rich in docosahexonic acid, or DHA—one of the omega-3 fatty acids found in cold-water fish—dramatically slowed the progression of Alzheimer's in mice. Specifically, DHA cut the harmful brain plaques that mark the disease. Omega-3 fatty acid supplements are now being tested with early-stage Alzheimer's patients in the United States, Canada and Sweden.

• **Imaging study to track brain changes—**A VA scientist is leading a five-year, $60-million imaging study, funded by the National Institutes of Health and an alliance of partners, to track brain changes in 800 people with and without Alzheimer's disease.

For more information on VA research:
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July 2005